Complete Summary

GUIDELINE TITLE

Drug-drug interactions between HAART, medications used in substance use treatment, and recreational drugs.

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Drug-drug interactions between HAART, medications used in substance use treatment, and recreational drugs. New York (NY): New York State Department of Health; 2008 Jan. 18 p. [69 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: New York State Department of Health. Drug-drug interactions between HAART, medications used in substance use treatment, and recreational drugs. New York (NY): New York State Department of Health; 2005 Jul. 22 p.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory information has been released:

- March 12, 2008, Prezista (darunavir): The U.S. Food and Drug Administration (FDA) and Tibotec Therapeutics notified healthcare professionals of changes to the WARNINGS section of the prescribing information for Prezista (darunavir) tablets regarding the risk of hepatotoxicity, specifically, drug induced hepatitis in patients receiving combination therapy with Prezista/ritonavir.
- September 10, 2007, Viracept (nelfinavir mesylate): Pfizer issued a Dear Healthcare Professional Letter to inform healthcare professionals of the presence of ethyl methanesulfonate (EMS), a process-related impurity in Viracept and to provide guidance on the use of Viracept in pregnant women and pediatric patients.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Human immunodeficiency virus (HIV) infection
- Conditions associated with drug interactions encountered in HIV-infected patients using highly active antiretroviral therapy (HAART) as well as medications used in substance use treatment and recreational drugs

GUIDELINE CATEGORY

Management
Prevention
Risk Assessment

CLINICAL SPECIALTY

Allergy and Immunology
Family Practice
Infectious Diseases
Internal Medicine
Pharmacology

INTENDED USERS

Advanced Practice Nurses
Health Care Providers
Physician Assistants
Physicians
Public Health Departments
Substance Use Disorders Treatment Providers

GUIDELINE OBJECTIVE(S)

- To present an overview of known and potential interactions between medications used in the treatment of substance use, recreational drugs, and highly active antiretroviral therapy (HAART)
- To provide guidelines for prevention and management of drug-drug interactions between HAART and medications used in substance use treatment and recreational drugs

TARGET POPULATION

Human immunodeficiency virus (HIV)-infected patients

INTERVENTIONS AND PRACTICES CONSIDERED

1. Conducting a thorough medication history at each visit, including
    - Prescription medications
    - Over-the-counter medications
    - Recreational drugs
    - Herbal and alternative therapies
2. Classifying common inhibitors, inducers, and substrates of the cytochrome P-450 (CYP450) system to predict significant drug interaction
3. Discussing potential drug interactions with patients receiving methadone or using recreational drugs before initiating antiretroviral therapy (ARV)
4. Monitoring patients receiving concurrent methadone or using recreational drugs and highly active antiretroviral therapy (HAART) for drug-interaction symptoms, such as withdrawal symptom or excess sedation and zidovudine toxicity (in patients taking methadone), as well as for signs of hepatotoxicity (in patients taking recreational drugs)
5. Reporting all prescribed HAART-related drug changes for patients receiving methadone to the patient's methadone maintenance program, particularly if changes include initiating efavirenz or nevirapine
6. Avoiding certain drug combinations likely to produce adverse reactions (refer to the original guideline document for details)

MAJOR OUTCOMES CONSIDERED

Morbidity/adverse effects associated with drug-drug interactions

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Committee)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

AIDS Institute clinical guidelines are developed by distinguished committees of clinicians and others with extensive experience providing care to people with HIV infection. Committees* meet regularly to assess current recommendations and to write and update guidelines in accordance with newly emerging clinical and research developments.

The Committees* rely on evidence to the extent possible in formulating recommendations. When data from randomized clinical trials are not available, Committees rely on developing guidelines based on consensus, balancing the use of new information with sound clinical judgment that results in recommendations that are in the best interest of patients.

* Current committees include:

- Medical Care Criteria Committee
- Committee for the Care of Children and Adolescents with HIV Infection
- Dental Standards of Care Committee
- Mental Health Committee
- Women's Health Committee
- Substance Use Committee
- Physician's Prevention Advisory Committee
- Pharmacy Committee

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

All guidelines developed by the Committee are externally peer reviewed by at least two experts in that particular area of patient care, which ensures depth and quality of the guidelines.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

General Recommendation

The clinician should conduct a thorough medication history at each visit that includes prescription medications, including those prescribed by other providers, over-the-counter medications, recreational drugs, and herbal/alternative therapies.

Drug Interactions Related to the Metabolism of Highly Active Antiretroviral Therapy (HAART)

Table 2 in the original guideline document shows the potential interactions among antiretroviral (ARV) agents and the most common medications used to treat substance use disorders according to how they are metabolized.

Drug Interactions with Methadone

Clinicians should discuss potential drug interactions with patients receiving methadone before initiating ARV therapy.

Clinicians should report all prescribed HAART-related drug changes for patients receiving methadone to the patient's methadone maintenance program.

Clinicians should monitor human immunodeficiency virus (HIV)-infected substance users receiving concurrent methadone and ARV therapy for symptoms of withdrawal and/or excess sedation when ARV therapy is initiated or changed.

Key Point:

Interactions between HAART and methadone may precipitate symptoms of oversedation or withdrawal.

Nucleoside/Nucleotide Reverse Transcriptase Inhibitors (NRTIs)

When using didanosine in patients receiving methadone, clinicians should consider using the enteric-coated capsule formulation because it does not lead to a clinically significant interaction when given concurrently with methadone.

Clinicians should monitor patients for symptoms of zidovudine toxicity, such as anemia, nausea, and headaches, when zidovudine and methadone are used concurrently.

Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)

Clinicians initiating a HAART regimen consisting of efavirenz or nevirapine in patients receiving methadone should contact the methadone maintenance program clinicians to ensure that the onset of withdrawal symptoms, if they occur, is promptly addressed by increasing the patient's methadone dose.

Clinicians prescribing methadone maintenance therapy should closely monitor patients when adding efavirenz or nevirapine to their ARV regimens.

Recreational Drugs and HAART

Clinicians should assess adherence and be alert for signs of hepatotoxicity in HIV-infected patients receiving HAART who are concurrently using recreational drugs.

See Appendix XI in the original guideline document for a list of known drug interactions with HAART and recreational drugs.

Amphetamines

Clinicians should not prescribe ritonavir, even in low doses for boosting, if patients report using amphetamines.

Barbiturates

Clinicians treating HIV-infected patients misusing barbiturates should:

- Avoid co-administration of NNRTIs and phenobarbital
- Use caution if maraviroc and phenobarbital are used concomitantly
- Consider doubling the raltegravir dose when co-administered with phenobarbital

Benzodiazepines

Clinicians should avoid concurrent use of alprazolam, midazolam, and triazolam with all protease inhibitors (PIs), delavirdine, and efavirenz.

Ecstasy (Methylenedioxy-methamphetamine [MDMA])

Clinicians should not prescribe protease inhibitors (PIs), even in low doses for boosting, if patients report using ecstasy or gamma hydroxybutyrate (GHB).

Psychotropics

Clinicians should consider medication interactions as a potential cause of mental status changes in persons receiving psychotropic medications and HAART.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Improved understanding and appropriate management of known and potential interactions between medications used in the treatment of substance use, recreational drugs, and highly active antiretroviral therapy (HAART)

POTENTIAL HARMS

Refer to appendix XII in the original guideline document for agents to be used with caution.

CONTRAINDICATIONS

CONTRAINDICATIONS

Refer to appendix XII in the original guideline document for contraindicated combinations.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The AIDS Institute's Office of the Medical Director directly oversees the development, publication, dissemination and implementation of clinical practice guidelines, in collaboration with The Johns Hopkins University, Division of Infectious Diseases. These guidelines address the medical management of adults, adolescents and children with HIV infection; primary and secondary prevention in medical settings; and include informational brochures for care providers and the public.

Guidelines Dissemination

Guidelines are disseminated to clinicians, support service providers and consumers through mass mailings and numerous AIDS Institute-sponsored educational programs. Distribution methods include the HIV Clinical Resource website, the Clinical Education Initiative, the AIDS Educational Training Centers

(AETC) and the HIV/AIDS Materials Initiative. Printed copies of clinical guidelines are available for order from the NYSDOH Distribution Center for providers who lack internet access.

Guidelines Implementation

The HIV Clinical Guidelines Program works with other programs in the AIDS Institute to promote adoption of guidelines. Clinicians, for example, are targeted through the Clinical Education Initiative (CEI) and the AIDS Education and Training Centers (AETC). The CEI provides tailored educational programming on site for health care providers on important topics in HIV care, including those addressed by the HIV Clinical Guidelines Program. The AETC provides conferences, grand rounds and other programs that cover topics contained in AIDS Institute guidelines.

Support service providers are targeted through the HIV Education and Training initiative which provides training on important HIV topics to non-physician health and human services providers. Education is carried out across the State as well as through video conferencing and audio conferencing.

The HIV Clinical Guidelines Program also works in a coordinated manner with the HIV Quality of Care Program to promote implementation of HIV guidelines in New York State. By developing quality indicators based on the guidelines, the AIDS Institute has created a mechanism for measurement of performance that allows providers and consumers to know to what extent specific guidelines have been implemented.

Finally, best practices booklets are developed through the HIV Clinical Guidelines Program. These contain practical solutions to common problems related to access, delivery or coordination of care, in an effort to ensure that HIV guidelines are implemented and that patients receive the highest level of HIV care possible.

IMPLEMENTATION TOOLS

Personal Digital Assistant (PDA) Downloads

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

New York State Department of Health. Drug-drug interactions between HAART, medications used in substance use treatment, and recreational drugs. New York (NY): New York State Department of Health; 2008 Jan. 18 p. [69 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2005 Jul (revised 2008 Jan)

GUIDELINE DEVELOPER(S)

New York State Department of Health - State/Local Government Agency [U.S.]

SOURCE(S) OF FUNDING

New York State Department of Health

GUIDELINE COMMITTEE

Substance Use Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Chair: Marc N Gourevitch, MD, MPH, New York University School of Medicine , New York, New York

Members: Bruce D Agins, MD, MPH, New York State Department of Health AIDS Institute, New York, New York; Julia H Arnsten, MD, MPH, Montefiore Medical Center, Bronx, New York; Lawrence S Brown, Jr, MD, MPH, FASAM, Addiction Research and Treatment Corporation, Brooklyn, New York; Brenda Chabon, PhD, Montefiore Medical Center, Bronx, New York; Barbara H Chaffee, MD, MPH, Binghamton Family Care Center, Binghamton, New York; Michael L Christie, MD, AIDS Community Health Center, Rochester, New York; Chinazo O Cunningham, MD; Montefiore Medical Center, Bronx, New York; Nereida L Ferran-Hansard, MD, Jacobi Medical Center, Bronx, New York; Steven S Kipnis, MD, FACP, FASAM, New York State Office of Alcoholism and Substance Abuse Services, Orangeburg, New York; Joseph P Merlino, MD, MPA, Mount Sinai School of Medicine, New York, New York; Nancy Murphy, NP, St. Luke's Roosevelt Hospital Center, New York, New York; Edward Nunes, MD, New York State Psychiatric Institute, New York, New

York; David C Perlman, MD, Beth Israel Medical Center, New York, New York; Sharon L Stancliff, MD, Harm Reduction Coalition, New York, New York; Robert Whitney, MD, Erie County Medical Center, Buffalo, New York

Liaisons: Daliah I Heller, MPH, Liaison to the New York City Department of Health and Mental Hygiene, New York, New York

AIDS Institute Staff Liaisons: Diane M Rudnick, MEd, Liaison to the New York State Department of Health AIDS Institute, New York, New York

AIDS Institute Staff Physician: Eunmee H Chun, MD, New York State Department of Health AIDS Institute, New York, New York

Principal Contributors: John J Faragon, PharmD, Albany Medical Center, Albany; Paul Pham, PharmD, The Johns Hopkins University, Baltimore

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: New York State Department of Health. Drug-drug interactions between HAART, medications used in substance use treatment, and recreational drugs. New York (NY): New York State Department of Health; 2005 Jul. 22 p.

GUIDELINE AVAILABILITY

Electronic copies: Available from the New York State Department of Health AIDS Institute Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Appendix XI: Drug interactions with HAART and recreational drugs. New York (NY): New York State Department of Health; 2008 Jan. 1 p. Electronic copies: Available from the New York State Department of Health AIDS Institute Web site.
- Appendix XII: Interactions between HIV-related medications and psychotropic medications. New York (NY): New York State Department of Health; 2008 Jan. 3 p. Electronic copies: Available from the New York State Department of Health AIDS Institute Web site.

This guideline is also available as a Personal Digital Assistant (PDA) download from the New York State Department of Health AIDS Institute Web site.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on August 18, 2005. This NGC summary was updated by ECRI Institute on June 11, 2008.

COPYRIGHT STATEMENT

DISCLAIMER

NGC DISCLAIMER

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at http://www.guideline.gov/about/inclusion.aspx .

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

Date Modified: 10/20/2008


DEPARTMENT OF HEALTH & HUMAN SERVICES • USA